

WHAT IS CLAIMED IS:

1. An audio and video reproduction apparatus comprising:

a head mounted display for converting a video signal into an image to present to a listener/watcher;

a pair of acoustic transducers each used for converting an audio signal into a sound to present to said listener/watcher;

detection means for detecting an orientation of the head of said listener/watcher;

image-changing means for changing said video signal supplied to said head mounted display in accordance with an orientation of the head of the listener/watcher; and

sound-image localization processing means for changing an sound-image localized position of an audio signal reproduced by said acoustic transducers, in accordance with an orientation of the head of said listener/watcher.

2. An audio and video reproduction apparatus according to claim 1 wherein said pair of the acoustic transducers are headphones mounted on the head of said listener/watcher or a pair of earphones attached to the ears of said listener/watcher.

3. An audio and video reproduction apparatus

according to claim 1 wherein said pair of the acoustic transducers are speakers provided at positions close to the ears of said listener/watcher.

4. An audio and video reproduction apparatus according to claim 1 wherein said detection means comprises a sensor mounted on the head of said listener/watcher and a conversion unit for converting a detection signal generated by said sensor into a signal representing the orientation of the head of said listener/watcher.

5. An audio and video reproduction apparatus according to claim 1 wherein said image-changing means is a cut-out circuit for extracting a video signal representing an image stretched over a visual-field range visible to said listener/watcher by means of said head mounted display from a video signal representing an image stretched over a range wider than said visual-field range in accordance with an orientation of the head of said listener/watcher.

6. An audio and video reproduction apparatus according to claim 1 wherein said image-changing means is a cut-out circuit for extracting a video signal representing an image stretched over a visual-field range of said listener/watcher from a video signal representing

an image stretched over a 360-degree range surrounding said listener/watcher in accordance with an orientation of the head of said listener/watcher.

7. An audio and video reproduction apparatus according to claim 1 wherein said image-changing means is a video synthesis circuit for synthesizing video signals representing images stretched over a visual-field range visible to said listener/watcher by means of said head mounted display in accordance with an orientation of the head of said listener/watcher.

8. An audio and video reproduction apparatus according to claim 1 wherein said sound-image localization processing means carries out sound-image localization processing based on transfer functions from a sound-image localized position of said audio signal to the ears of said listener/watcher to produce said audio signal, which is supplied to said pair of the acoustic transducers as if said audio signal were localized at said sound image localized position.

9. An audio and video reproduction apparatus according to claim 1 wherein said sound-image localization processing means converts an audio signal representing a sound covering a 360-degree range surrounding said listener/watcher into an audio signal,

which is supplied to said pair of the acoustic transducers as a reproduction signal as if said reproduced sound image were localized outside the head of the listener/watcher.

10. An audio and video reproduction apparatus according to claim 1 wherein said video signal supplied to said head mounted display and said audio signals supplied to said acoustic transducers are reproduced from a recording medium.

11. An audio and video reproduction apparatus according to claim 1 wherein said video signal supplied to said head mounted display and said audio signals supplied to said acoustic transducers are received from a network in a real-time manner.